

Abstract

A filter adaptation unit suitable for producing a set
5 of filter coefficients is provided including an error
characterization unit for characterizing the error in a
filter's impulse response, where the set filter
coefficients determining the impulse response are derived
using a least squares method. The error characterization
10 unit generates a set of error characterization data
elements associated to a newly generated set of filter
coefficients. The set of error characterization data
elements is generated on the basis of a first input signal
and a noise signal. The first signal and the noise signal
15 are first broken down into frequency bands. A computation
for statistically characterizing the error is then applied
to each frequency band, yielding an error characterization
data element per frequency band. A selection unit then
selects one of the newly generated set of filter
20 coefficients and an existing set of filter coefficients at
least in part on the basis of their respective sets of
error characterization data elements. The selected set of
filter coefficients is then released in a format suitable
for use by an adaptive filter.

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